CLAIMS

1. A method for decreasing the foam formation during cultivation of a microorganism, c h a r a c t e r i z e d in that the process comprises the steps of

- modifying the microorganism in such a way that the microorganism does not produce an essential amount of at least one of the proteins, polypeptides or peptides associated with foam formation during cultivation, said proteins, polypeptides or peptides being amphipathic or hydrophobic proteins, polypeptides or peptides, not including lipopeptides or lipoproteins ; and
- cultivating the microorganism under suitable culture conditions.

2. The method of claim 1, c h a r a c t e r i z e d in that the proteins, polypeptides or peptides associated with foam formation are hydrophobins or hydrophobin-like molecules.

3. The method of claim 1 or 2, c h a r a c t e r i z e d in that the hydrophobins are HFB I and/or HFBII of *Trichoderma*.

4. The method of any one of claims 1 to 3, c h a r a c t e r i z e d in that the modification comprises genetic modification of the microorganism.

5. The method of claim 4, c h a r a c t e r i z e d in that the genetic modification comprises genetic modification of a DNA sequence encoding a protein, polypeptide or peptide regulating the production of at least one of the proteins, polypeptides or peptides associated with foam formation.

6. The method of claim 4, c h a r a c t e r i z e d in that the genetic modification comprises genetic mofication of the regulatory region of a gene encoding at least one of the proteins, polypeptides or peptides associated with foam formation

7. The method of claim 4, c h a r a c t e r i z e d in that the genetic modification comprises genetic modification of a DNA sequence encoding at least one of the proteins, polypeptides or peptides associated with foam formation.

8. The method of claim 7, c h a r a c t e r i z e d in that the genetic modification comprises inactivation of a DNA sequence encoding at least one of the proteins, polypeptides or peptides associated with foam formation.

9. The method of claim 8, c h a r a c t e r i z e d in that the genetic modification comprises deletion of a DNA sequence encoding at least one of the proteins or polypeptides or peptides associated with foam formation.

10. A method for producing a product by cultivating a microorganism,
c h a r a c t e r i z e d in that the process comprises the steps of
- modifying the microorganism in such a way that the microorganism does not produce an essential amount of at least one of the proteins, polypeptides or peptides associated with foam formation during cultivation, said proteins, polypeptides or peptides being amphipathic or hydrophobic proteins, polypeptides or peptides, not including lipopeptides or lipoproteins;
- cultivating the microorganism under suitable culture conditions; and
- recovering the product from the cultivation.

11. The method of claim 10, c h a r a c t e r i z e d in that the product is a protein or a metabolite or biomass.

12. The method of claim 10, c h a r a c t e r i z e d in that the product is a recombinant product.

13. A production host strain, c h a r a c t e r i z e d in that the host strain is genetically modified not to produce an essential amount of at least one of the amphipathic or hydrophobic proteins, polypeptides or peptides associated with foam formation during cultivation of the non-modified production host strain, said proteins, polypeptides or peptides being amphipathic or hydrophobic proteins, polypeptides or peptides, not including lipopeptides or lipoproteins.

14. The production host strain of claim 13, c h a r a c t e r i z e d in that the proteins, polypeptides or peptides associated with foam formation are hydrophobins or hydrophobin-like proteins.

15. The production host strain of claim 13 or 14, c h a r a c t e r i z e d in that the strain is a fungal strain.

16. The production host strain of claim 15, c h a r a c t e r i z e d in that the host strain is a *Trichoderma* strain.

17. The host strain of claim 16, c h a r a c t e r i z e d in that the proteins are HFB I or HFB II or both of *Trichoderma*.

18. The host strain of claim 13 or 14, c h a r a c t e r i z e d in that the host srain is a bacterial strain.

19. The host strain of claim 18, c h a r a c t e r i z e d in that the strain is a *Bacillus spp.* strain, a *Streptomyces spp.* strain or an *E. coli* strain .

20. A production host strain, c h a r a c t e r i z e d in that the host strain is
- genetically modified not to produce an essential amount of at least one of the proteins, polypeptides or peptides associated with foam formation during cultivation of the non-modified production host strain, said proteins, polypeptides or peptides being amphipathic or hydrophobic proteins, polypeptides or peptides, not including lipopeptides or lipoproteins; and is
- modified to be capable of producing a product of interest.

21. A production host strain, c h a r a c t e r i z e d in that the host strain is genetically modified not to produce an essential amount of at least one of amphipathic or hydrophobic proteins, polypeptides or peptides, said proteins, polypeptides or peptides being amphipathic or hydrophobic proteins, polypeptides or peptides, not including lipopeptides or lipoproteins, and has an increased capability to produce a product of interest.

22. The host strain of claim 21, c h a r a c t e r i z e d in that the host strain is modified to be capable of producing a product of interest.

23. The host strain of any one of claims 20 to 22, c h a r a c t e r i z e d in that the host strain is a fungal strain.

24. The host strain of any one of claims 20 to 23, c h a r a c t e r i z e d in that the host strain is a *Trichoderma* strain.

25. The host strain of any one of claims 20 to 24, c h a r a c t e r i z e d in that the hydrofobins are HFB I or HFB II of *Trichoderma*.

26. The host strain of any one of claims 20 to 22, c h a r a c t e r i z e d in that the microorganism strain is a bacterial strain.

27. The host strain of claim 26, c h a r a c t e r i z e d in that the microorganism strain is a *Bacillus spp.* strain, a *Streptomyces spp.* strain or an *E. coli* strain .

28. The host strain of any one of claims 20 to 27, c h a r a c t e r i z e d in that the product of interest is a protein or a metabolite or biomass.

29. The host strain of any one of claims 20 to 27, c h a r a c t e r i z e d in that the product of interest is a recombinant product.

30. The host strain of any one of claims 20 to 29, c h a r a c t e r i z e d in that the host strain is genetically modified to be capable of producing a fusion molecule comprising a molecule of interest fused to a hydrophobin.

31. A process for producing an enhanced amount of a product of interest, c h a r a c - t e r i z e d in that the process comprises the steps of

- cultivating a production host strain of any one of claims 20 to 30; and
- recovering the product from the cultivation.